

WHAT IS CLAIMED IS;

1. A method for recycling of plating solutions, comprising the steps of: preparing an alloy plating solution containing two kinds of metallic materials which differ in standard electrode potential, the metallic materials being co-deposited on a conductive member; and

removing substantially all of one metallic material from the alloy plating solution, thereby preparing a single metal plating solution composed of an other metallic material.

2. The method for recycling of plating solutions according to claim 1, wherein the single metal plating solution is used to apply a plating treatment to a conductive member.

3. The method for recycling of plating solutions according to claim 1 or 2, wherein one of an additives contained in the alloy plating solution is a complexing agent; at least some of the complexing agent is removed from the alloy plating solution; and the other metallic material in the single metal plating solution is deposited at a nobler potential than the potential at which the two kinds of metallic materials in the alloy plating solution are co-deposited.

4. The method for recycling of plating solutions according to any of claims 1 to 3, wherein the one metallic material is removed by being deposited at least on an electrode member or a conductive member soaked in the alloy plating solution.

5. The method for recycling of plating solutions according to claim 4, wherein the other metallic material remaining in the single metal plating solution is compensated by the electrode member dissolving.

6. The method for recycling of plating solutions according to claim 3, wherein the additives contain plural ingredients one of which is the complexing agent; and the ingredients which are included in the additives and are removed together with the complexing agent are added to the single metal plating solution.

7. The method for recycling of plating solutions according to claim 3 or 6, wherein the additives include an antioxidant; at least some of the antioxidant is removed together with the complexing agent; and the antioxidant is added to the single metal plating solution.

8. The method for recycling of plating solutions according to any of claims 1 to 7, wherein the one metallic material is bismuth, silver, copper, indium, or zinc, and the other metallic material is tin.